

## ABSTRACT OF THE DISCLOSURE

A technique for classifying a packet in a deterministic number of lookup operations. The technique builds a single “super class” that contains the match criteria for all the rules associated with packet classification. The “super class” is then compiled to produce a series of lookup tables and equivalence sets, including a final lookup table and  
5 equivalence set. The final equivalence set is then “post-processed” to associate the entries in the final lookup table with a particular result.